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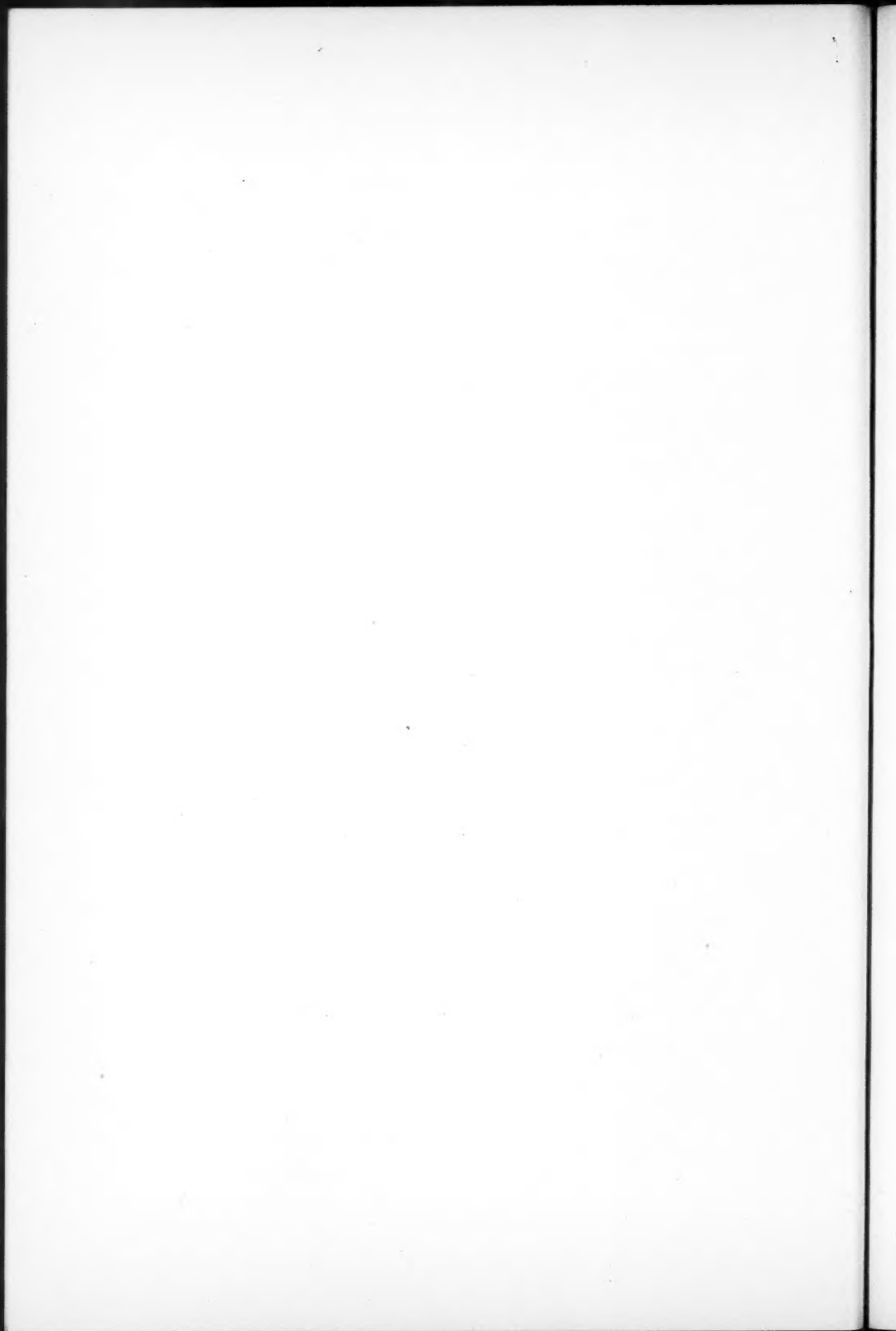
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POPLITEAL VARICES SIMULATING BAKER'S CYST

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Memphis

VARICOSITIES of the deep popliteal veins are of extremely rare occurrence. The embryology and anatomy of extremity veins have been studied carefully by Kampmeier and Birch.¹ They found that valves are usually located at the entrance of the saphenous into the femoral and the popliteal veins. These are also usually below the opening of a tributary; however, this was not constant and there seemed to be no regularity whatsoever in their location. The deep veins composed of the femoral, popliteal, anterior and posterior tibial and their tributaries are located beneath the deep fascia and are surrounded by the powerful muscles of the leg. This prevents these veins from dilating when subjected to pressure; also the pumping action of the muscles in walking aids in emptying these veins. Varicosities of the deep veins rarely occur for these reasons.

Sarma² in an analysis of 1387 ligations of varying types in 1000 patients reports 2 excisions of a popliteal varix. These two patients had dilated veins in the posterior surface of the leg during high ligations and were not benefited by injection later. Dilation became much more pronounced and exploration revealed that they communicated directly with the popliteal vein through a small opening in the deep fascia. These popliteal varices were excised with good results. In a review of the available literature for the past 10 years no other reference is found of such conditions.

In the past 4 years 3 such cases have been referred to the author with the tentative diagnosis of Baker's cyst or posterior herniation of the knee capsule. It must be confessed that none were diagnosed correctly preoperatively, though the condition was definitely suggested in the last two. Venograms were not made prior to exploration. One was aspirated and bloody fluid secured, but this case had

h.c.

been subjected to an injury. The other two had no traumatic history. All histories and physical findings were compatible with the diagnosis of Baker's cyst and only one, a woman, had other varicosities which were mild. Two were males aged 40 and 34, seen at U. S. Naval Hospital, New Orleans, La., and one a female, aged 48, seen in private practice.

At operation the deep fascia of the popliteal space was found to be quite thin and weak in every instance. In one case two definite gaps were noted. Muscles were normal. Very large Medusa-head masses of popliteal varices were found each time, filling the deep popliteal space. Despite a very meticulous search no other pathology was found. All were treated by complete excision.

Convalescence was uneventful in each case except for considerable swelling of the calf in two cases. One of these required two procain blocks of his lumbar sympathetic ganglia for complete relief. The other male had an uneventful recovery. The third case had moderate leg edema which responded promptly to an elastic stocking. The two men were returned to full duty, one as a seaman, the other as an athletic instructor and later baseball umpire. The woman has resumed all her household duties with no symptoms. She is now 6 months postoperative, the men are three and a half years and two and a half years, all without return of disability.

SUMMARY

1. A rare anatomico-clinical picture has been reported and 3 cases presented.
2. This condition may be easily mistaken for popliteal (Baker's) cyst.
3. Surgical excision is curative.

*The opinions or assertions contained in this article are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

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COMMON DUCT OBSTRUCTION RELIEVED BY INJECTION OF A TOPICAL ANESTHETIC INTO T TUBE

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and

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A COMMON duct obstruction following a cholecystectomy and choledochostomy is a perplexing problem in any patient, but especially so in the poor risk patient in whom reoperative intervention would be technically difficult. Recently we were confronted with such a problem. A review of the literature promptly produced the article by Harris and Marcus¹ in which they reported injecting nupercaine solution into the T tube. This innocuous procedure is based on the premise that the common duct obstruction is caused by a spastic contraction of the sphincters of Boyden and Oddi, stimulated by the presence of foreign bodies, and that topical anesthesia of the receptor end of the reflex will relax the sphincters with a subsequent flushing of the gravel and "cholesterol mud" into the duodenum.

REPORT OF CASE

A white 40 year old obese graduate nurse* two years previously had an emergency cholecystostomy for empyema of the gallbladder. At that time due to her extremely poor condition and obesity only drainage was done and several mixed type stones were removed. Nothing was palpated in the common duct. Her postoperative course was uneventful for about a year when she began to have attacks of right upper quadrant pain associated with nausea, vomiting and chills. Her weight at this time was 325 pounds. These attacks continued and it was decided that operative intervention was indicated. Her weight had been brought down with a low caloric diet to 260 pounds.

At operation there was a small, dense, fibrotic gallbladder and the common duct was dilated to 2 cm. in diameter. Exploration of the common duct produced a single multi-faceted mixed type stone 0.5 by 1 cm. and also numerous gravel-like stones. The stones were removed and the patency of the common duct assured by flushing with normal saline and the passage of graded dilators into the duodenum. T tube drainage was instituted and the fibrotic remains of the gallbladder removed.

On the twelfth postoperative day intermittent clamping of the T tube was begun. The closed periods were progressively increased up to as long as 20 hours out of the 24. This the patient tolerated uneventfully, had no sensation of pressure and passed normal-colored stools. On the seventeenth postoperative day she had an attack of right upper quadrant pain with nausea, vomiting, chills and fever. Opening the T tube relieved the pain. Irrigation of the tube with warm saline was carried out: 30 c.c. could be injected before the patient

*Patient operated on by Dr. B. H. Clifton.



Fig. 1. Cholangiogram showing the obstruction at the sphincter of Oddi.



Fig. 2. Cholangiogram after injection of nupercaine solution, showing small amount of dye passing sphincter at (A) and into duodenum (B).

complained of pain and each time 30 c.c. were aspirated. The returned fluid was bile-stained and contained thick strands of phlegmacious debris. A cholangiogram showed an obstruction at the sphincter of Oddi (fig. 1).

The patient was premedicated with a medium acting barbiturate and the T tube injected with 20 c.c. of 1:500 solution of nupercaine. A cholangiogram 20 minutes later showed that a small amount of the contrast material had passed into the duodenum, but a constriction remained at the ampulla (fig. 2).



Fig. 3. Cholangiogram after injection of solution of metycaine, showing sphincter open widely and dye passing freely into duodenum.

Four days later the T tube was reinjected, this time with 20 c.c. of a 1.5 per cent solution of metycaine. The premedication was the same. A cholangiogram 20 minutes later showed that the contrast material entered the duodenum readily without dilating the common duct (fig. 3). Subsequent irrigation with saline solution produced no discomfort and none of the solution could be aspirated. The patient has been discharged from the hospital in good condition.

At the present time, four weeks after the initial injection of the anesthetic solution, the T tube is open for one hour a day, at which time the hydrostatic pressure of the column of bile when the patient is in the recumbent position is sufficient to prevent its overflow. With the patient on her side only 7 to 10 c.c. of golden-colored bile drains out in one hour.

COMMENT

There is no doubt in our minds that the anesthetic solution in-

jected into the T tube relieved the common duct obstruction. In this instance metycaine solution produced better results than did the nupercaine. If the patient is properly premedicated with a barbiturate the procedure can do no harm. This patient was saved further surgery which would have been formidable.

SUMMARY

Another case is reported in which common duct obstruction was relieved by injection of a topical anesthetic solution.

REFERENCE

1. Harris, F. I., and Marcus, S. A.: Common Duct Stone Relieved by Injection of Nupercaine Solution into T Tube, *J.A.M.A.* 137:29-30 (May 4) 1946.

PROBLEM OF CARCINOMA OF THE COLON IN THE SOUTHEAST

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THE loss of 35,000 lives per year from carcinoma¹ of the colon is sufficient to make this surgical problem one of more than passing interest. While the South and Southeast have the lowest death rate in the United States from carcinoma of the gastrointestinal tract, the number of deaths from this cause reported in the Southeastern States shows the early diagnosis and institution of treatment of carcinoma of the colon is still one of our most urgent problems. This study is an attempt to evaluate the available information to see just how big this problem is and how successful the methods advocated in handling this problem have been in lowering the mortality rate.

That cancer is an important medical and surgical problem is revealed by the fact that about eighty-three out of every one thousand males and one hundred and fifteen out of every one thousand females will die from cancer if the present mortality rates² continue unaltered. While the outlook in the treatment of any malignancy is not too bright, the attitude of hopelessness should never be accepted. Progress has been made in the treatment of this disease and when more emphasis is placed on the early diagnosis and treatment even better results will be obtained. Too often does the following experience, which is similar to one related by Dr. Alton Ochsner before this Congress last year, happen to us. During the past year, the author saw an elderly man who was denied the chance to live when the diagnosis of carcinoma of the rectum was made. His family physician did not insist on surgery at the time of diagnosis and his family thought he was too old to be operated upon. The patient died of hemorrhage and exhaustion eighteen months after the diagnosis was made. At autopsy his lesion had not metastasized beyond the regional lymph nodes and was still resectable.

The gastrointestinal tract is the most frequent site of carcinoma in both sexes. Carcinoma of the colon comprises about 10 per cent³ of all the cases of the gastrointestinal tract. Half of these growths involve the rectum alone and two thirds involve the sigmoid and rectum. Ochsner and De Bakey⁴ in their review of 4,561 collected cases of carcinoma of the large bowel, 2,670 (58.5%) were oper-

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able. They report operability from twenty-three different sources. Sixty-five and two tenths had an operability rate of 50 per cent or better, and 34.7 per cent had a rate of less than 50 per cent.

Autopsy studies of Larson⁵ showed that of 210 cases of carcinoma of the colon coming to autopsy 113 had either no metastasis at all or only a few regional lymph glands which were resectable. Harding⁵ in 118 postmortem examinations found no apparent metastasis in 41 per cent and in an additional 4 per cent the metastases were readily amenable to surgical extirpation. In 44 per cent of this group of fatal cases lesions were resectable. In the same group 35 cases had palliative operations but 20 were found to be resectable.

Only three Southeastern States maintain records of carcinoma of the colon including the sigmoid and rectum in the Bureau of Vital Statistics. These are records of deaths. The only available data recorded on operability and treatment is on indigent state-aid cases which comprise a small percentage of active cases. These States are Georgia, Louisiana and Mississippi and their reports are as follows: Georgia⁶: Deaths from carcinoma of the colon reported for three years, 1943, 1944 and 1945—527. Deaths from carcinoma of the rectum, 241. A total of 768 deaths for the colon and the rectum. In the same period of time, deaths from carcinoma of the liver and biliary passages totalled 435. Operability of state-aid cases showed carcinoma of the colon operable in 44.6 per cent of the cases and carcinoma of the rectum operable in 33 per cent.

Louisiana⁷ reported 194 deaths from carcinoma of the colon in 1945. Divided according to race and sex, there were 73 deaths of white males; 77 deaths of white females; 15 deaths of colored males, and 29 deaths of colored females. The age incidence was greatest at 65 and above.

Mississippi⁸ reports deaths from carcinoma of the colon from 1941 through 1945 as follows: 1945, 203 deaths; 1944, 137 deaths; 1943, 141 deaths; 1942, 118 deaths; 1941, 112 deaths.

Probably the best summation of information obtainable from the Bureaus of Vital Statistics comes from West Virginia, whose director⁹ states that 45.2 per cent of cancer deaths are due to cancer of the digestive tract and peritoneum. In the treatment phase of the cancer control program only 8.9 per cent of the cancer cases fall in this category. It is evident that diagnosis of cancer of the digestive tract is made in the last stages of the disease.

More specific information of regional incidence of carcinoma of the gastrointestinal tract is found in the surveys made in New Or-

leans, Atlanta, and Birmingham by the United States Public Health Service. For New Orleans¹⁰ in 1937 the percentage distribution of reported cases of cancer by sex, color and primary site per 100,000 population:

SITE	WHITE		COLORED		TOTAL	
	Male	Female	Male	Female	Male	Female
Rectum and Anus	2.8	1.6	3.2	1.8	2.8	1.6
Intestines	3.4	5.0	3.2	1.8	3.4	4.2

Atlanta, Georgia, 1939. Percentage distribution by primary site and sex of reported² cases of cancer and recorded deaths from cancer. (Deaths for State of Georgia.)

SITE		MALE	FEMALE
Intestines	Cases	3.5	3.0
	Deaths	9.1	6.9
Rectum and Anus	Cases	2.3	1.9
	Deaths	4.3	3.4

Birmingham, Alabama.¹¹ Percentage distribution of the total reported cancer cases, by primary site and sex, 1938:

PRIMARY SITE	MALE	FEMALE
Intestines	3.4	3.6
Rectum and Anus	3.3	2.5

The ratio of cases to deaths was 3.5 to 1; 59 per cent of the living cases of the digestive tract had a duration of over 6 months, while only 28 per cent of the dead survived this period.

The source of reported cases in five large cities by percentages is as follows:¹¹

PERCENTAGES

Reported by	Birmingham	Pittsburgh	Atlanta	Chicago	New Orleans
Physicians only	59	37	36	30	22
Hospitals only	29	40	52	59	68
Both hospitals and physicians	12	23	12	11	10

The cause of cancer of the colon is not known. The one condition which practically always ends in carcinoma is polyposis. Whenever and wherever polyps are found in the colon they should be removed. It is an accepted fact that certain individuals have a tendency to tissue hyperplasia. A person who has had a malignant lesion in his body is more likely to have another than a person who has never had cancer.

We find that many bureaus of vital statistics record deaths from carcinoma under such classifications as digestive tract and peritoneum and liver and biliary passages. Such groups represent a high percentage of cancer deaths and undoubtedly a considerable proportion of the deaths represent metastatic malignancies rather than primary tumors. If these were allocated to the primary sites it would appreciably alter the figures we use at present.

Since lesions of the colon are visible, palpable or demonstrable by opaque enema and x-ray it would appear that the diagnosis should be made much earlier than our present statistics indicate. Many factors contribute to the failure of early diagnosis. Cancer of the colon is insidious in its onset and the early symptoms are few and mild and of rather indefinite nature but they tend to become gradually more pronounced. Unless there is early constriction of the lumen of the bowel, symptoms may be entirely disregarded for many months.

Rives³ states that malignancy of the rectum or sigmoid which makes up two thirds of the carcinoma of the colon can be seen by sigmoidoscopic examination. Half of all malignancy of the colon is located in the rectum within reach of the examining finger. In 136 of the 276 lesions of the colon and of the rectum observed by Cohn,¹² approximately 50 per cent, and of 72 of the 125 cases observed through material (tissue, sections and roentgenograms) sent, 60 per cent, cancer was present. Rectal case lesions could be felt while colon cases were diagnosed by barium enema. Few biopsies were done. Brindley¹³ reports a series of 190 cases in which 126, or 66.3 per cent, had palpable masses which was the most prominent physical finding. Seventy patients with lesions of the right colon had palpable tumors and 56 patients with lesions of the left colon had palpable tumors. This is higher percentage of palpable masses than was noted in any other reported series of cases.

The presenting symptoms of carcinoma of the colon and rectum vary little in all the series presented in the literature. Those listed by Romano and Trachtenberg¹ in their review of 228 cases from

the Charity Hospital of Louisiana at New Orleans are quite constant in other series.

	Right half of colon 43 cases	Left half of colon 56 cases	Rectum 129 cases	Entire series 228 cases
Changes in bowel habit	16%	41%	51%	42%
Bleeding	5%	18%	58%	42%
Pain or vague discomfort	60%	41%	49%	50%
Mass in abdomen	35%	5%	—	8%
Anemia	9%	—	—	2%

Two thirds of the cases of the large bowel occur in the rectum or rectosigmoid and 95 to 100 per cent within reach of the examining finger. Operability in lesions of carcinoma of the colon and rectum still remain at an encouraging level. Swinton and Higginbotham¹⁴ have reported an operability rate of 75 per cent at the Lahey Clinic. Rankin and Olson reported an operability at the Mayo Clinic of 68 per cent. Ochsner and Hines¹⁵ report curative resection in 86 of 113 cases (76.9 per cent). In 233 cases of carcinoma of the large intestine Stone and McLanahan¹⁷ report an operability rate of 84 per cent in the right colon; 77.7 per cent in the transverse; 70.4 per cent in the left colon and 67.6 per cent in the rectum. Brindley¹³ in reporting 190 cases states that some type of surgery was done for 79 per cent of the 190 patients. A removal of the tumor was accomplished for 66.6 per cent of the patients operated upon. A resection of the carcinoma was performed for 52.6 per cent of all patients seen. In this series the duration of symptoms in the inoperable cases was 9.3 months while in the operable case the duration was 8 months. In Abell's¹⁸ series of 200 cases of carcinoma of the large bowel including the rectum, 44.5 per cent of the patients came under observation at a time when radical measures could be instituted, 34.5 per cent at a time when palliative measures only could be employed and 19.5 per cent when neither method of possible relief was available. A total of 54 per cent denied the chance of cure which surgery offers. Five patients in this group had multiple foci including two cases with two lesions in the colon. Morgan's¹⁹ series showed an operability rate of 58.3

per cent. The operability rate from Charity Hospital of New Orleans as reported by Romano and Tractenberg¹ for 228 cases in the year of 1935 to 1941 changed from 24 per cent in 1935 to 70 per cent in 1941 with a change in mortality rate from 71 per cent in 1935 to 28 per cent in 1941.

It is evident that hospitals are playing a part as diagnostic centers and delay in hospitalization may be a delay in diagnosis. If physicians are dependent on hospitals for diagnosis, patients should be sent in for study whenever symptoms which might indicate cancer are present.

One of the purposes of this presentation is to point out some of the reasons for the delay in diagnosis and treatment of lesions of the colon. The chief reasons: (1) failure on the part of the patient to seek medical aid early; (2) failure on the part of the physician to recognize early carcinoma of the large bowel; (3) the physicians first consulted by patients are incapable of making early diagnosis or of rendering best service; (4) wrong advice by the first physician consulted; (5) delay in receiving adequate treatment after the diagnosis is made.

There is only one method of dealing with malignancy which offers the greatest chance of life and cure, complete extirpation of the growth. Many famous surgeons have presented excellent papers before this Congress on the operative management of carcinoma of the colon. To this particular phase of the problem I can add nothing more than was presented by Ochsner, Meyer and Cattell at our 1946 meeting.

Stone and McLanahan¹⁷ have well stated that "operability rates depend on many factors and may reflect both the type of patients in a given series and the attitude of the operator towards radical resection. An extension of operability will necessarily result in a higher mortality rate, but mortality rates in cancer surgery should be viewed with a less critical eye than mortality rated in non fatal diseases."

When cancer is treated is more important than how it is treated, provided the patient is in competent hands. Conservatism, when dealing with malignancy, conserves the disease, not the patient.

Operative results:³ Mortality in right half of colon is 1 in 8 cases with 5 year cures resulting in half of those surviving surgery. Mortality in the left colon and rectum is approximately 1 in 6 cases with 5 year cures in one third to one half of those surviving surgery. The age of greatest incidence is above 50 years where mortality

rates are high, yet statistics show that prognosis in older people is not particularly bad.

Carcinoma of the colon can be diagnosed by more simple and positive procedures than carcinoma in any other portion of the gastrointestinal tract. The problem of early diagnosis and treatment of this disease at the present time is very similar to the problem of early diagnosis and treatment of tuberculosis in 1915 when the efforts of all the medical profession were first focused on the problem. Cancer control programs²⁰ up to the present have been built around the slogan "Consult Your Doctor," but there is no statistical evidence to indicate that any great progress has followed these educational campaigns. In spite of the excellent results of cancer therapy reported in medical journals each year the mortality figures show a steady increase. It has been estimated that one third of the 150,000 people who die of cancer each year could be saved if a majority of the victims could receive the best forms of treatment in an early stage of the disease. The physician first consulted may be incapable of rendering the best service through lack of training, lack of equipment or antiquated ideas. As surgeons, it is our responsibility to see that there is equipment for diagnosis and treatment in the County in which we practice and that all new methods of diagnosis and treatment are brought to the attention of every doctor in our County society at least once each year.

SUMMARY

Statistics show that there is a ratio of 3.5 deaths to each one case of carcinoma in the South, indicating that diagnosis of carcinoma of the gastrointestinal tract is usually made late. In the Southeastern States only three, Georgia, Louisiana and Mississippi, maintain statistics on carcinoma of the colon by which we can check our progress in diagnosis and treatment of the disease.

Autopsy reports show that a high percentage of cases of carcinoma of the colon were not only resectable but had metastasis only to regional lymph glands. The size of a lesion is no indication of its resectability. Carcinoma of the colon is insidious in its onset and any patient presenting symptoms commonly seen in the disease should have a rectal examination: a sigmoidoscopic examination and a barium enema and x-ray. Carcinoma of the colon is a favorable lesion for cure.

Operability rates are increasing while mortality rates are improving.

The essence of treatment is *when* the patient is treated rather

than *how* he is treated provided he is in competent hands. Age is no barrier to treatment of cancer and statistics show that prognosis in older people is not particularly bad.

If a system of physical examination and x-ray similar to that now used in the diagnosis and treatment of tuberculosis is applied to the diagnosis and treatment of carcinoma of the colon, the mortality rate of this disease should fall in a manner similar to that of tuberculosis.

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CONGENITAL EXTRINSIC DUODENAL OBSTRUCTION IN THE NEW BORN

Report of Two Cases

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EXTRINSIC duodenal obstruction in the new born carries a strikingly high mortality. It is of interest to speculate on the cause of such a high mortality in a condition which gives beautiful results and a low mortality rate when early diagnosis is made and early surgery instituted. After a review of reported cases we believe that there are two causes, first, delay in diagnosis and second, inadequate surgery.

That diagnosis presents the greatest stumbling block to successful treatment in volvulus is indicated by the fact that in a collected series of 42 cases¹ under 5 years of age, 20 cases, or 47 per cent, remained undiagnosed until autopsy! Even though delayed diagnosis seems to be the greatest cause, it is evident that inadequate surgery must bear a part of the blame. Further, it appears that unfamiliarity with the peculiar pathologic conditions found in these cases, associated as they are with abnormalities in rotation, accounts both for the difficulties in diagnosis and for the inadequate surgery.

We will, therefore, briefly review the embryologic stages of rotation of the intestines and in particular of the midgut, in an attempt more clearly to understand the anatomic arrangement of the intestines which is found when normal rotation has been interfered with.

STATISTICS

Weible² in 1914 collected 66 cases of volvulus in all age groups, with a mortality of 66.4 per cent. There were 6 cases, 5 years of age or under, and in these the mortality was 100 per cent. Gardner and Hart in 1934³ collected 103 cases and added 2 of their own. The general mortality was 58 per cent. There were 42 cases under 5 years of age, with a mortality of 76 per cent. However, in this latter group, the mortality in the cases undergoing surgery was only 52.2 per cent. Borow and Borow in 1937⁴ reported one successful case in the new born, and interestingly but erroneously stated, "... this case is the first, we believe, in which operation was successfully performed when the patient was 4 days old." Ladd and

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Gross in 1941⁴ reported 44 of their own cases with a mortality of 38 per cent. Of 35 cases subjected to Ladd's operation the mortality was 22.9 per cent! Buckley and Wells in 1944⁵ reported 5 cases in the new born with a mortality of 100 per cent.



Fig. 1. From Ladd & Gross. Final stage of rotation and attachment of the mesenteries. The stippled portions become fused and anchored to the posterior abdominal wall, so that the ascending and descending parts of the colon are anchored and the mesentery of the jejunum and ileum have a posterior attachment from the origin of the superior mesenteric artery obliquely downward to the cecum.

EMBRYOLOGY

Congenital extrinsic duodenal obstruction in the new born is always associated with abnormalities of position and fixation of the intestines. Therefore, a thorough understanding of the embryologic development of the intestines is essential to a proper appreciation of the otherwise perplexing conditions found in these cases. To know the normal is to understand the abnormal!

Developmental errors of location of the foregut are exceedingly rare. Likewise, developmental errors of location of the hindgut are quite rare. Dott⁶ was able to find but 2 instances of gross displacement of the splenic flexure and only 9 instances wherein the descending colon was so far from normal position as to reach the midline.

Developmental errors in rotation of the midgut are, on the other hand, quite common, and in passing, it is well to remember that the pathologic consequences of malrotation are not confined to volvulus or obstruction in the new born, but exert their catastrophic influence at any age. We need but mention the not infrequent sub-hepatic or left-sided, ruptured appendix, to illustrate this fact.

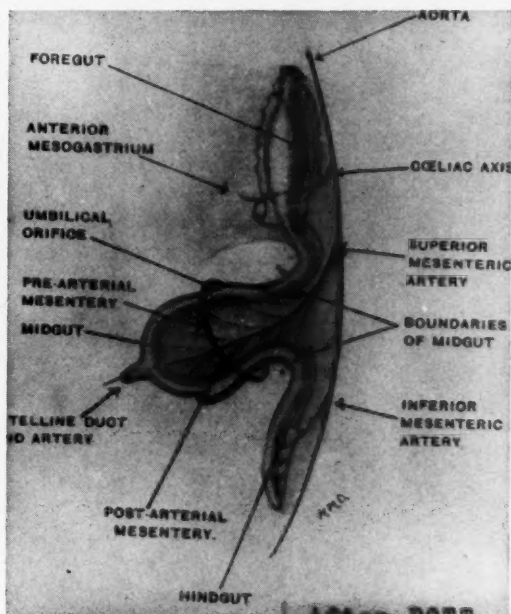


Fig. 2. Diagram representing conditions of primitive alimentary tract at fifth week. The 3 main subdivisions are seen to constitute 3 loops—the foregut, the midgut, and hindgut. The aorta is representative of the axis of the body. From it the 3 loops are suspended by their common mesentery, in the sagittal plane. In the mesentery the special arterial supply for each loop is represented. The midgut loop is already large and has been extruded into the umbilical cord. The cecal bud is adhering.

Let us first define the midgut as that portion of the small and large intestine beginning in the duodenum at the entrance of the bile duct and extending to the mid-portion of the transverse colon.

To put the cart before the horse, as it were, we will first consider the end result of normal rotation. Figure 1, from Ladd and Gross, is a diagrammatic illustration of the final position of the intestines and their mesenteric attachments after normal rotation and fixation have been completed. The duodenum runs from right to left under-

neath the superior mesenteric artery to join the jejunum at the ligament of Trietz. The jejunum and ileum have their mesenteries attached posteriorly, from the superior mesenteric artery, obliquely downward and to the right, to the cecum. The ascending and descending parts of the colon are anchored to the posterior abdominal wall since their mesenteries have fused with that structure. The

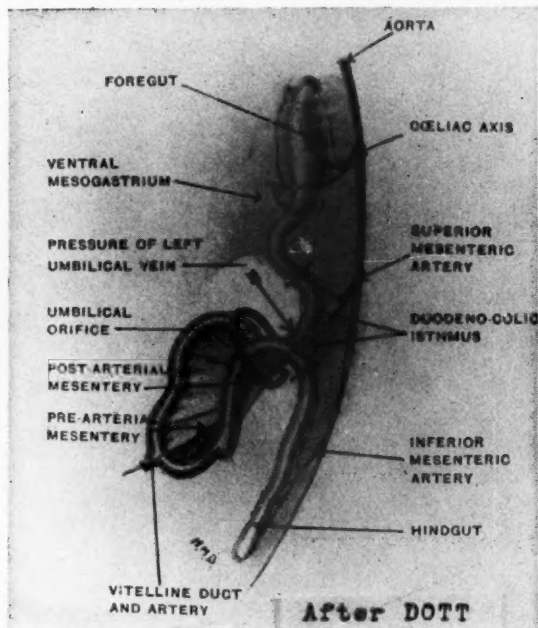


Fig. 3. Diagram representing conditions of alimentary tract about the eighth week. The first stage of rotation is being accomplished. The arrow indicates the pressure exerted by the left umbilical vein upon the pre-arterial segment of the loop, forcing it downward and to the right. Note the narrow duodenal-colic isthmus at the base of the loop, with the superior mesenteric artery running through it.

cecum lies in its normal position in the right lower quadrant and the ileum enters it from left to right. We will now view the midgut before rotation has begun and trace its evolution to the end result just described.

Figure 2, from Dott, illustrates the primitive alimentary tract at the fifth week. The aorta represents the long axis of the body. The foregut, midgut and hindgut, are seen to be suspended by a common mesentery in the sagittal plane and each division has a special blood supply. Note particularly the sagittal plane of the entire intestines.

and the pre-arterial and post-arterial segments of the midgut, lying, for the most part, in the umbilical cord.

Figure 3, from Dott, shows the alimentary tract at the eighth week. There has been a 90° anti-clockwise turn to complete the first stage of rotation. Derangements of the first stage are rare and occur only in extroversion of the cloaca. It is arrest of rotation or malrotation in the second and third stages that is of interest to the surgeon.

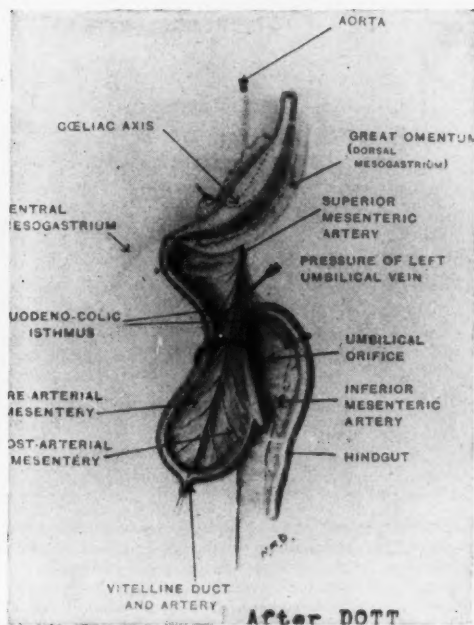


Fig. 4. Diagram representing the same stage as preceding figure, viewed from ventral aspect. The same points are brought out. Note especially the right-sided position of the small intestine and the left-sided disposition of the large at this early stage of the rotation process. In the condition referred to as "non-rotation" these relations are maintained.

Figure 4, after Dott, is a front view at the completion of the first stage. Note especially the right-sided position of the small intestine and the left-sided position of the colon. The duodenum does not run from right to left under the superior mesenteric artery but descends on its right and on the right side of the vertebral column. If rotation is arrested at this point, these positions are maintained throughout the life of the individual. The practical surgical importance of this is evident.

Figure 5, after Dott, illustrates conditions at the tenth week as the second stage of rotation begins. Note that the jejunum and ileum (pre-arterial segment) are being withdrawn into the abdomen and are inserting themselves under the superior mesenteric artery.

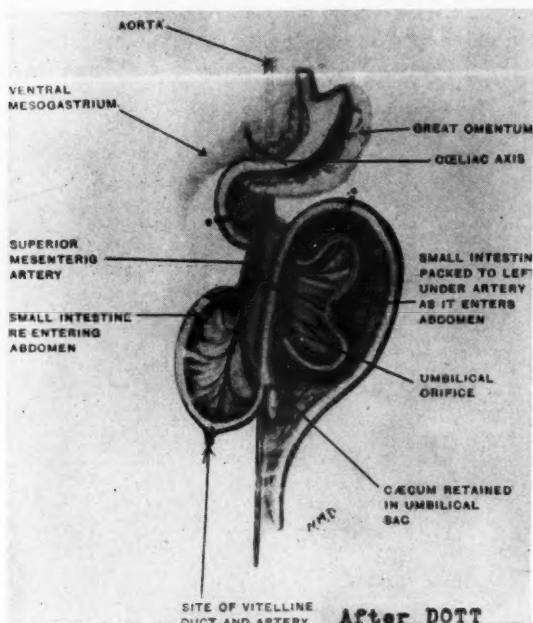


Fig. 5. Diagram representing conditions of the alimentary tract at the tenth week. It will be seen that the pre-arterial segment of the loop—the small intestine—has increased in length disproportionately to the post-arterial segment, and that its mesentery has shared its rapid growth. The cecum and adjacent colon have grown relatively thick. The temporary umbilical hernia is in process of reduction. The small intestine is seen entering the abdomen on the right side of the superior mesenteric vessels and passing to the left side of the abdomen behind the mesenteric vessels to fill up the available space. The vessels are held forwards to the umbilicus by the cecum, which still lies in the sac. The second stage of rotation is in progress.

Figure 6, after Dott, illustrates the completion of the second stage of rotation. The essentials of the permanent disposition of the intestines have been attained. The second stage has consisted of an anti-clockwise turn about the superior mesenteric artery of 270° from the fifth week sagittal position. Thus the duodenum has attained its normal position behind the artery and the colon has crossed from left to right in front of the artery.

The chief factor which determines the second stage is the sequence

in which the intestines are returned to the abdomen from the umbilical cord. Normally, the jejunum returns first and then the ileum, as an anti-clockwise turn is made, under the superior mesenteric artery. Interruption of the normal sequence of return is of practical

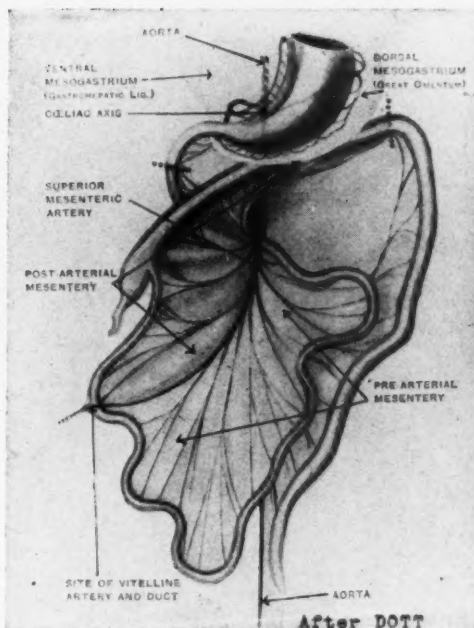


Fig. 6. Diagram illustrating conditions of alimentary canal about the eleventh week. The second stage of rotation is complete—the cecum is now in contact with the posterior abdominal wall at the right loin. It will now be seen that the midgut loop has rotated on the axis of the superior mesenteric vessels through 270° from its original sagittal plane. The essentials of the permanent disposition of the viscera have been attained.

importance. Figure 7, after Dott, shows a malrotation of the midgut loop, there being a reversed rotation of the pre-arterial segment of 90° in a clockwise direction, with arrested rotation of the post-arterial segment so that the mesentery is folded over as on a hinge, along the line of the superior mesenteric artery. Figure 8, after Dott, shows a reversed rotation of the midgut loop. The colon is seen to lie behind the mesenteric vessels with the duodenum in front.

In the third stage of rotation (fig. 1) the cecum further descends and certain portions of the intestine become fixed to the posterior abdominal wall by the fusion of their mesenteries to the posterior parietal peritoneum. The cecum by the fifth month has reached the

iliac crest. The fourth portion of the duodenum has become fixed in its retroarterial position by fusion of its mesentery. The superior mesenteric artery is directed obliquely downwards and its mesentery is fixed in the same oblique direction. The ascending and descending colons are fixed. Thus the mesentery of the postarterial segment,

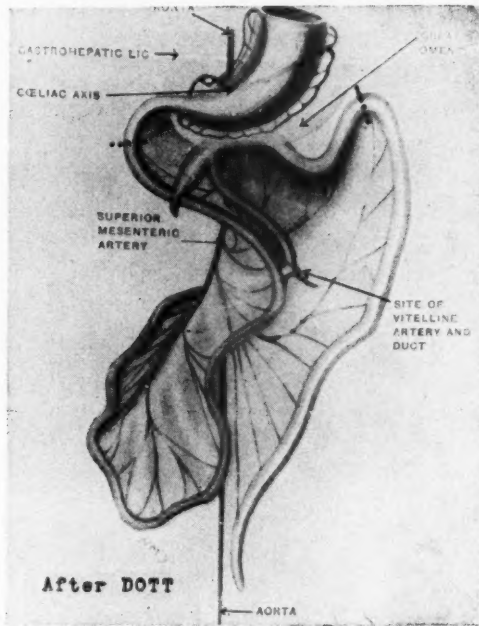


Fig. 7. Malrotation of midgut loop. Reversed rotation of the pre-arterial segment to 90° in a clockwise direction. Arrested rotation of the post-arterial segment. The mesentery is folded over, as on a hinge, at the line of the superior mesenteric artery.

or at least that of the cecum, ascending colon and hepatic flexure has become obliterated by fusion. The transverse colon maintains its mesentery. The prearterial mesentery remains free as the mesentery of the small intestine. The mesentery of the hindgut is completely obliterated.

The practical considerations of the third stage of rotation are fixation or fusion to the posterior parietal peritoneum in such a way that displacement, especially volvulus, is impossible.

ADHESIONS AND IMPERFECT FIXATION

The many case reports show that when the midgut loop is arrested in rotation or when malrotation occurs, fixation of the intes-

tine is imperfect and a great variety of secondary adhesions cause abnormal fixation. It appears that in practically all cases of volvulus due to malrotation, abnormal fixation is present. In fact, so constant are the abnormal adhesions that we may conclude that abnormal fixation is a *sine qua non* of volvulus. It appears quite defi-

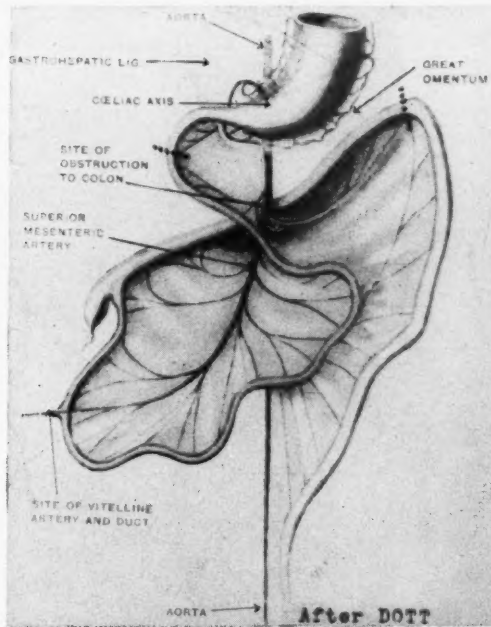


Fig. 8. Reversed rotation of midgut loop. The midgut loop has rotated in a clockwise direction through 90° from the original sagittal plane. Thus the colon is brought to life behind the mesenteric vessels and the duodenum in front of them. These are the only noticeable defects, the viscera otherwise attaining normal positions, though of course their anterior and posterior surfaces are reversed. (Case 1.)

nitely that in cases of malrotation without abnormal fixation, volvulus does not occur. It is interesting to note that in the 3 cases collected by Dott, abnormal adhesions were not mentioned. He stated, however, that out of 48 cases he collected from the literature, 35 were accidentally discovered and the intestinal misplacement apparently gave rise to no symptoms and, further, he stated that in 13 cases, erroneous fixation of the bowels was the directly predisposing cause of the obstruction. He quoted Rixford's⁷ case in which he found, on entering the abdomen, "... that there were adhesions which bound the duodenum to the transverse colon." Gardner and Hart showed the point of fixation in one of their cases,

fig. 9, to be adhesions between the upper part of the jejunum and the lower part of the ileum and in the other case (fig. 10) between the jejunum and the cecum.

Ladd and Gross have found that in practically all of their cases the point of fixation has been between the hepatic flexure or the cecum, to a peritoneal band attached to the liver region. In both of the cases to be reported, the point of fixation was by adhesions binding the hepatic flexure across the duodenum.

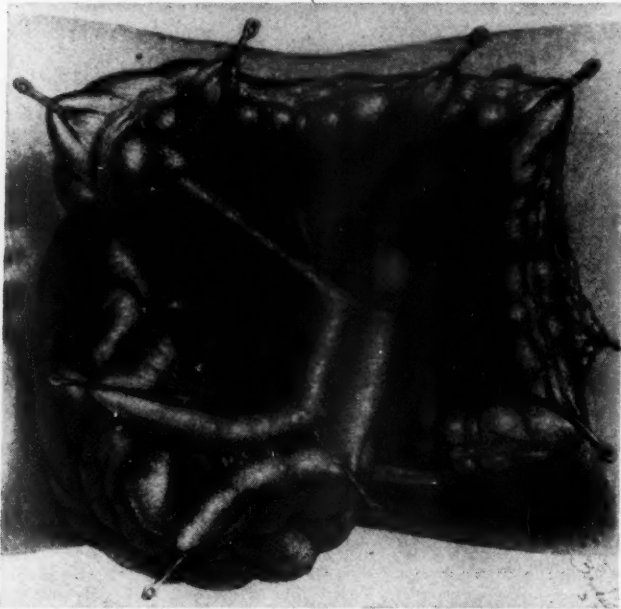


Fig. 9. First Case of Gardner & Hart. Appearance after detorsion, showing the adhesions between the terminal ileum and the first part of the jejunum. The mesentery of these segments was also firmly adherent from the bowel to the attachment of the root of the mesentery to the posterior abdominal wall.

DUODENAL OBSTRUCTION FROM VOLVULUS AND FROM ABNORMAL BANDS

We have learned that in arrested rotation the mesenteries of the midgut loop are not anchored. The small intestines hang from a short mesentery about the superior mesenteric artery. The midgut portion of the colon is freely movable. Thus we have an ideal situation for volvulus, given an exciting cause which we believe is an abnormal fixed point. Figure 11, from Dott (his second case),

illustrates volvulus of the entire midgut loop, one and one-quarter turns in a clockwise direction. Note the point of obstruction of the duodenum. Dott does not mention a fixed point. Figure 12, after Dott, illustrates volvulus of the small intestine in his third case. Again he makes no mention of a fixed point. Figure 13, after Dott, is a drawing from a postmortem specimen and illustrates well the duodenal obstruction at the neck of the volvulus. In this figure Dott calls attention to "the tightness with which the duodenum is wound

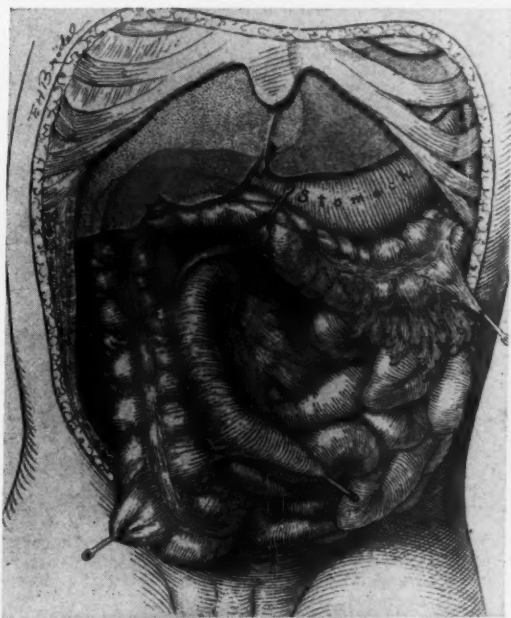


Fig. 10. Second Case of Gardner & Hart. Appearance after detorsion. The duodenum is dilated and entirely on the right of the midline. As in Case 1, there are adhesions between the proximal and distal parts of intestine involved in the volvulus.

around the mesenteric pedicle on account of a fixation of its first and second parts." He calls attention to the wide spiral which the ileum describes around the pedicle. This is the usual condition found and explains the absence of vascular disturbance in the obstructed loop. This will be referred to in reporting our Case 2.

In the presence of abnormal rotation, duodenal obstruction may occur without volvulus. Ladd and Gross have beautifully demonstrated this fact and our first case bears it out. Figure 14, from Ladd and Gross, is a drawing from the operative finding in a new

born with duodenal obstruction due to malrotation and abnormal fixation. Note the incompletely rotated cecum lying across the straight non-rotated duodenum, and the adhesions which hold it there. In the right-hand figure the operative treatment is shown;

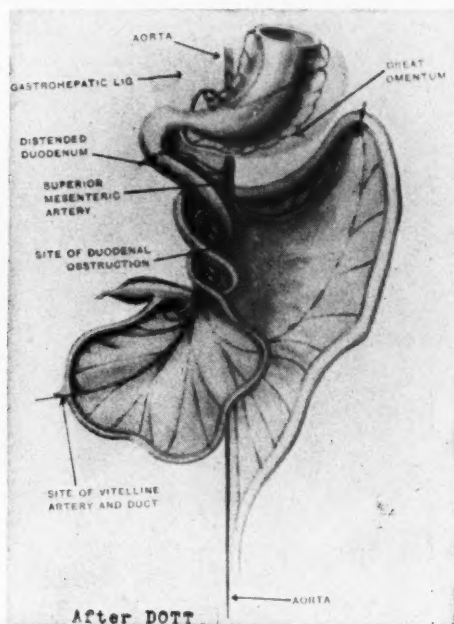


Fig. 11. Volvulus of midgut loop superimposed on non-rotation. The twist involves one-and-a-quarter turns— 450° —in a clockwise direction from the original sagittal plane. That is, it deviates by two complete turns from the normal fully-developed position. Note that the cecum has obtained its normal location. (Case 2.)

the bands are severed and the right colon is pushed over to the left, thus relieving the obstruction. Our first case was similar to this except that the hepatic flexure rather than the cecum lay across the duodenum.

Figure 15, from Ladd and Gross, demonstrates the Ladd operation for volvulus due to arrested rotation. Number 1 shows the appearance on opening the abdomen. Note the prominence of the small intestines in relation to the right colon which is not seen. Number 2 illustrates the very essential step of delivering the intestines on to the abdomen. In no other way can a complete view of the pathology be obtained. While writing this paper our attention was called to a fatality in a new born due to failure to observe this

rule—the adhesions across the duodenum were severed but the volvulus was not seen until the second operation when it was too late. Numbers 3 and 4 show the reduction of the volvulus and Numbers 5 and 6, the second part of the Ladd operation, the severing of the

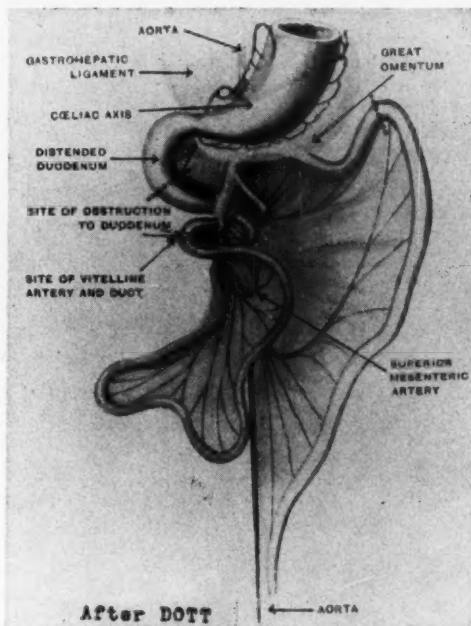


Fig. 12. Volvulus of the entire small intestine (excepting duodenum), superimposed on mal-rotation as shown in Fig. 7. The twist involves one complete turn of the parts implicated, from the original sagittal plane, in a clockwise direction. (Case 3.)

fixed point bands and the return of the right colon to the left. Note especially the disposition of the intestines in this figure and compare with the embryologic positions at the completion of stage one of rotation.

CASE REPORTS

CASE 1. Baby Hughes, white, male, born 23 March, 1946, weighing 8 lbs. 1 oz. The child began to vomit on the second day. Several meconium stools were passed and on the fifth day there was a brownish-green stool. His condition grew progressively worse and he continued to lose weight. Atropine had no effect. X-ray examination showed a partial obstruction of the duodenum not influenced by atropine. The vomitus contained bile. On the sixth hospital day practically everything taken was vomited though an occasional feeding was partially retained. When first seen on the eighth day, the child was in very good condition. His hydration had been beautifully kept up by

the attending pediatrician. Diagnosis of partial obstruction at the duodenum was quite obvious. The vomiting of bile and the beginning of vomiting at three days of age enabled us to eliminate hypertrophic pyloric stenosis. Operation was performed on the eighth day.

On opening the abdomen the intestines appeared normal except that the duodenum and stomach were dilated. On delivering the intestines, the cecum and ascending colon were not attached and could be pulled up and over to the left side. There was no volvulus. From the liver to the hepatic flexure lay a peritoneal band which held the hepatic flexure on a straight duodenum. On incising this band and moving the hepatic flexure to the left side, the duodenum immediately emptied itself. The duodenum was on the right side of the abdomen.



Fig. 13. (Case 3.) Drawing from the postmortem specimen. There is a volvulus of the entire small intestine. Note the duodenum distended with bile; the site of the obstruction of the duodenum where it enters the neck of the volvulus; the tightness with which the duodenum is wound about the mesenteric pedicle on account of a fixation of its first and second parts. The comparatively wide spiral which the ileum describes around the pedicle occasions no obstruction. Note the large, free mass of the volvulus and the narrowness of its pedicle. The cecum is seen to occupy the sub-pyloric position, typical of mal-rotation. (See fig. 12.)

Postoperatively, there was some vomiting for several days but by the fifth day the child was retaining all of its food and was gaining weight. Convalescence was complicated by a superficial infection in the wound which cleared

up readily, but not until several fine black silk sutures were extruded. The child has been in good health ever since.

CASE 2. We are indebted to Dr. W. C. Jones, of Miami, for the privilege of presenting this case, that of a white male, apparently normal, born on 12 Feb., 1944. Weight 7 lbs. 12 oz.; length 21 inches.

This child began to vomit on the first day of life. On the fifth day, x-ray examination showed distention of the stomach and duodenum but particularly of the duodenum (fig. 16). Some barium passed through into the colon. Operation was performed on the sixth day and a volvulus of the midgut with arrested rotation was discovered. The volvulus was reduced and the abdomen closed. Postoperatively, there was no improvement whatever. X-ray exam-



Fig. 14—From Ladd & Gross. Appearance of abdominal viscera in a newly born child who had acute intestinal obstruction since the first day of life. An incompletely rotated cecum lies across the third part of the duodenum and obstructs it by extrinsic pressure. Method of surgical treatment. The peritoneal reflection which had anchored the cecum across the duodenum has been cut and the cecum is allowed to slide toward the midline of the abdomen, where it is left. This completely relieves the duodenal obstruction.

ination 72 hours later showed a continuing obstruction of the duodenum with a few particles of barium passing through at five hours.

On the third postoperative day, the abdomen was opened again. It was found that the volvulus had recurred, and now, in the light of the knowledge gained by study of the work of Ladd and Gross, the volvulus was again reduced and the hepatic flexure was found bound down by adhesions across the duodenum, therefore, this band was incised and the hepatic flexure thrown over to the left side of the abdomen. The postoperative course was somewhat stormy due to the severe ileus from which this child suffered. Constant gastric drainage was instituted and careful parenteral administration of fluids was continued until the intestines regained their tone and the child began to gain weight. The child, up to the present, has had no recurrence and has had a perfectly normal development. In this case, volvulus had been present for 7 days or more and yet there was no interference with the vascular supply of the involved loops of intestine. As mentioned earlier, this is explained by the loose manner in which the intestines coil about the mesentery.

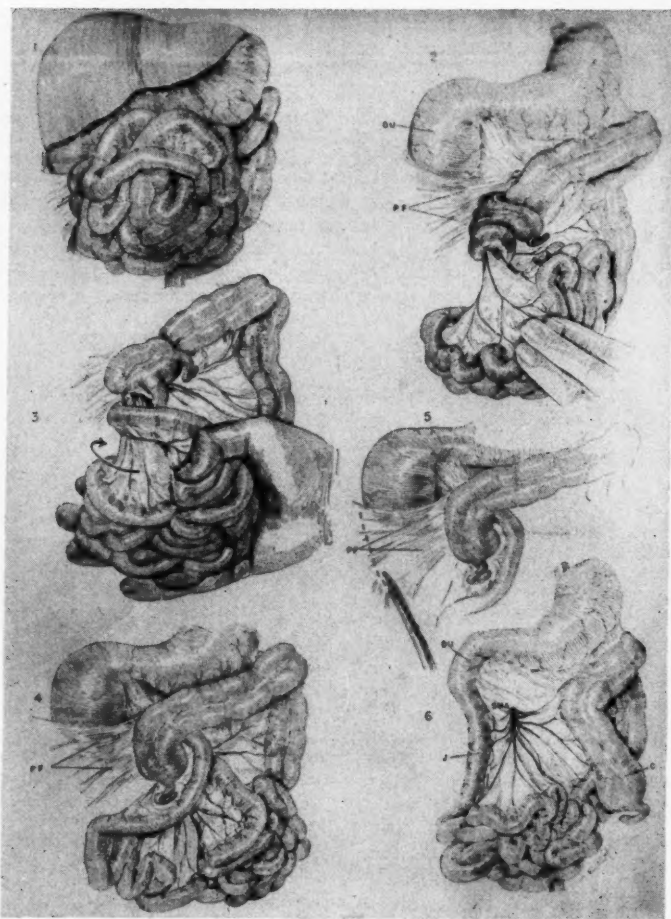


Fig. 15—From Ladd & Gross. Operative treatment of acute intestinal obstruction arising from incompletely rotated cecum associated with volvulus of the midgut.

C, Cecum. DU, Duodenum. J, Jejunum. Pf, Peritoneal folds. SMA, Superior Mesenteric Artery.

1, Appearance of viscera on opening abdominal cavity. The small intestines are seen at once and appear to hide the right half of the colon.

2, The intestinal mass is delivered out of the wound and pulled downward, showing the base of the mesentery. Coils of intestine or ascending colon are wrapped around the root of an incompletely anchored mesentery. The volvulus has taken place in a clockwise direction. The descending duodenum is dilated because of extrinsic pressure from the peritoneal folds which cross it and run to the colon.

3, The volvulus is reduced by taking the entire intestinal mass in the hand and rotating it in an anticlockwise direction (in most cases).

4, The volvulus is now completely reduced and the cecum lies in the right paravertebral gutter. The peritoneal folds over the cecum can now be seen as they press on the duodenum. The duodenum is still obstructed by these folds.

These cases present two types of obstruction of the duodenum in the new born associated with arrested rotation. In Case 1, the obstruction was due to abnormal fixation of the hepatic flexure across a straight duodenum whereas in Case 2, the obstruction was twofold,



Fig. 16. X-ray showing duodenal obstruction in the second case.

first from a volvulus and second from abnormal fixation of the hepatic flexure across the duodenum. Cure resulted from a procedure in which the intestines were returned to the positions found in the embryo after the completion of the first stage of rotation.

DIAGNOSIS

Vomiting is the chief complaint in intestinal obstruction of the new born. Continuing vomiting in an otherwise healthy baby means obstruction, and in obstruction early surgery is life-saving. Early

5, Method of releasing the duodenal obstruction by cutting the peritoneal folds which compress the second or third part of the duodenum. The folds are cut along the dotted line. These folds do not carry any blood supply to the intestine or colon.

6, Appearance of the intestines and ascending colon at the end of the operative procedure. The duodenum descends along the right paravertebral gutter to join the jejunum. The small intestines lie on the right side of the abdomen, while the cecum and ascending colon slide to the midline or left side of the abdomen. All obstruction is relieved by this procedure. The superior mesenteric artery and its branches are left exposed as shown.

surgery means a low mortality—late surgery a high mortality. Abdominal distention is not a symptom of high intestinal obstruction. Thus, in duodenal obstruction, the only distention that is usually seen is that of the stomach itself and then only when it has not emptied itself by vomiting. It is our impression that the absence of abdominal distention is the chief reason for the delay in diagnosis, the physician being loath to make a diagnosis of intestinal obstruction in the absence of something that he can see or feel, such as a mass or distention. A review of case reports makes it apparent that hours and even days are wasted in indecision, even in the presence of positive x-ray evidence of obstruction—and this indecision and wasted valuable time because the diagnostic importance of vomiting, even in the absence of abdominal distention, is not appreciated.

The differential diagnosis between hypertrophic pyloric stenosis and extrinsic duodenal obstruction is usually not difficult. The former rarely occurs before the second week and bile does not appear in the vomitus, whereas in the latter vomiting begins early, even on the first day, and the vomitus usually contains bile. Differential diagnosis between atresia, stenosis and volvulus is difficult or impossible but decidedly unimportant. The important thing is to make the diagnosis of intestinal obstruction. The differential can await abdominal exploration!

PRE AND POSTOPERATIVE TREATMENT

It is trite to say that the important thing preoperatively and postoperatively is to combat dehydration and hypoproteinemia. It is not within the scope of this paper to discuss fluid balance. Suffice it to say that, fortunate indeed, is the obstructed new born who, in the deal of life, draws as his pediatrician one fully cognizant of the worth of glucose, saline, blood and plasma.

CONCLUSION

In this presentation we have attempted to bring attention to the following points:

First, the unnecessary high mortality in congenital duodenal obstruction of the new born.

Second, the relationship between abnormal embryologic development of the midgut and the surgical pathology found in obstruction.

Third, the importance of delivering the intestines on to the abdomen as a technical step in the surgery of this type of obstruction.

Fourth, the diagnostic importance of vomiting without abdominal distention.

Fifth, the importance of the procedure described by Ladd and Gross in the surgical correction of duodenal obstruction.

In addition, we have presented two hitherto unpublished case reports of extrinsic duodenal obstruction in the new born. We have quoted freely from the excellent studies of Dott and of Ladd and Gross and most of the illustrations used were taken from these authors.

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EDITORIAL

The Southland, long oppressed during the days of reconstruction, in economics, physical development and education, has now launched forth on a program which incorporates these constructive elements in a well balanced economy to a degree and with a progress which is well nigh inconceivable.

Great factories and mills are being constructed, native labor is available in adequate numbers, the rivers, the mountains, the lakes, afford hydroelectric energy in abundance, the unprecedented development of arterial highways has opened the vast virgin fields of agriculture, livestock, and diversified opportunities of remunerative enterprise. The long shore line and excellent harbors connect our shipping facilities with foreign countries. The long mild season is conducive to lower living costs, longer gardening and grazing periods which may well be reflected in greater profit to the producer and less cost to the consumer.

Our educational system has experienced meteoric development within the past five decades. In practically every state in the South great outstanding universities rise with a well balanced, all inclusive program. Medical colleges of the highest scholastic rating afford an opportunity in the South. Among some of these we think of Tulane, Vanderbilt, Duke, Emory, Baylor, Kentucky and Alabama. Associated with the various state and private universities are mag-

nificent hospitals where internships, residencies and fellowships may be had under a staff of excellent surgeons, internists and specialists. Such a well rounded economy connotes for still greater expansion and development by a population which is yet predominantly native American and whose love and pride for the growth of their own Southland can be most fittingly described by their grim and determined integrity.

Keeping pace with the progress of educational development, The Southeastern Surgical Congress was formed by Southern Surgeons for Surgeons in the South and to give opportunity for expression by a younger group of clinicians and research workers.

The experienced and nationally known surgeons who have shaped the policies of the Congress have built well the foundation upon which it rests today. Its programs have always been the equal of any of the larger societies'. It admits to membership only the finest caliber of surgeons for full Fellowship and to the junior group only those whose training and ethical reputation insure their future development into leaders in the surgical profession.

We live today in the hallowed tradition of Crawford Long, of Ephraim McDowell, of Shelton Horsley, of Rudolph Matas and many others whose contributions to medical literature have been revolutionary. They have led the way. We shall do no less, but shall strive to hold the torch a little higher for the emulation of those who shall come after us.

I recognize a challenging opportunity for the Congress. I should like to see and have proposed that a permanent Home and Library with Business and Editorial Offices housed therein be established in Atlanta. I have received many supporting endorsements of this idea.

I believe THE SOUTHERN SURGEON has a valuable contribution to render to Surgeons of the South. Its circulation must be increased in order to justify legitimate advertising. It must be maintained monthly. Original articles crave a wider distribution than our journal now affords. This is another reason for increased membership on a quality basis, together with increased subscription to the journal. The Hollywood Meeting will exceed by far any class of initiates yet known to the Congress. Invitation should be extended by existing members to desirable non-members.

During the war years, expansion was made difficult because of the vast number of our younger surgeons who were with the Armed Forces. Now that the guns of battle have been silenced and we take

up again the pleasant duty of not only our peacetime economic enterprises, but our professional avocations, it is fitting that each of us shall extend an invitation to a fellow surgeon, equally competent, to join this great Congress of Surgeons in the South for the South.

To such an objective may I indulge the hope that each member will dedicate himself to the consummation of such a constructive objective, and that The Southeastern Surgical Congress will rapidly take its rightful place among the great surgical organizations of America.

HERBERT ACUFF, *President,*

The Southeastern Surgical Congress.

ERRATA

On page 867 of the December issue, in the paper entitled Some Factors in Thyroid Surgery influencing Morbidity and Mortality, by Gordon S. Fahrni, of Winnipeg, Canada, two lines of Table 1 were transposed. The table should have appeared as follows:

TABLE 1
Mortality Chart

	Number of Operations	Deaths	Rate	Male	Female	Oldest	Youngest	Average Age
Total	4,954	35	0.7%	8	27	74	12	46
Toxic Diffuse	2,430	27	1.1%	7	20	72	12	43
Nodular Goiter	2,524	8	0.3%	1	7	74	30	55

THE SOUTHERN MEDICAL COLLEGES AND THE SOUTHERN SURGEON

THE SOUTHERN SURGEON has broken a tradition. It has acquired a broader cultural and scientific aspect. In short, THE SOUTHERN SURGEON has opened its pages to the medical colleges of the South. The surgical departments of the universities in this section are being invited to contribute at least two issues a year to the journal. Thus far, the program has been filled through the year 1951. So far as we know, this plan is entirely novel among medical journals; if so, it should set a precedent and establish a new tradition in scientific periodicals.

An affiliation between the universities and The Southeastern Surgical Congress is a distinctly desirable one from every point of view. On their part, the faculty members of the universities are provided an outlet for reports of their studies. On its part, the Congress fully appreciates the confidence exhibited by the universities in lending their cooperation in the plan, and is honored in having institutions of such high type contribute so generously to its journal. The Congress was established for the purpose of promoting, by educational methods, the advancement of surgery, especially in this part of the country. No richer nor more reliable source of scientific information can be found than in our Southern medical colleges. As the official organ of the Congress, the journal is in a position to carry this knowledge, not only throughout our own territory, but even to the far corners of the earth.

This connection is particularly advantageous for the younger surgeons, who will find a worthy place for their papers in THE SOUTHERN SURGEON. In fact, all the younger members of The Southeastern Surgical Congress, whether on the surgical faculties of the universities or not, are especially urged to give others the benefit of their experiences through the medium of the journal. Reports of single cases or groups of cases, or any other material of interest may be submitted. No doubt, a wealth of highly valuable information might be brought to light if our young men would write more abundantly and avail themselves of this opportunity to publish their work.

The plan for the publication of papers from the medical colleges was approved by the Council of the Congress before being referred to the colleges for their consideration. When approached upon the matter, most of the schools gladly joined hands with us. According to the plan, the members of the surgical faculties of the universities are to submit a sufficient number of papers to fill their respec-

tive issues, and the name of the contributing university is to appear on the cover.

The first of these issues, which was published in February, 1947, consisted of papers from the Department of Surgery of the Medical College of Alabama. The papers covered a wide variety of subjects, were presented in a most creditable manner, and were of the finest quality from the scientific viewpoint. Dr. Roy R. Kracke, Dean of the Medical College, wrote an editorial for the issue, in which he pointed out that the function of the medical school is not only to conduct an educational program, but also to render the greatest service for the public welfare. To do so, it must project itself into the practical problem of the care of the sick on a mass basis, must be vitally concerned with all matters pertinent to public health, and in every way possible must extend its influence for good. In all these activities, it should work in close harmony with the practicing medical profession. It was in keeping with this philosophy that the Department of Surgery of the Medical College of Alabama contributed the entire February issue of THE SOUTHERN SURGEON.

The August and September issues of the journal were contributed by the surgical faculty of the University of Tennessee. When the matter was presented to that body, the response was most enthusiastic. More papers were submitted than could be published in the August issue, and it was therefore necessary to carry several over in the September journal. The papers were accompanied by an editorial by Dr. O. W. Hyman, Dean of the Medical School, wherein he discussed the role of the surgical departments of our universities in the progress of surgery. Dr. Hyman pointed out that the basis of scientific knowledge is experiment, that rigorous control of scientific experiment is necessary that the results may be exact, and that these measures require the team work of an entire institution. The opportunity to advance the practice of surgery is therefore at the door of the department of surgery in our medical colleges, since here may be found the personnel, the necessary facilities and the financial support. Finally, the transmission of such knowledge through medical journals insures its wide use with a maximum degree of safety.

The Alabama and Tennessee men have set a high standard for the faculties of other colleges, though undoubtedly subsequent issues will reflect equal credit upon the contributors.

This plan constitutes one of the most forward steps which has ever been taken toward the promotion of good will between the

universities and the surgical profession in the South. Moreover, if the response of other medical colleges equals that of the Alabama and Tennessee institutions, it will prove a great stimulus to better surgery, to more research, and to more extensive surgical writing. The possibilities of such a plan are far-reaching. The stimulation of scientific investigation and the dissemination of the knowledge gained through the cooperation between the journal and the universities, should bring new renown to the universities and new distinction to *THE SOUTHERN SURGEON*, and should have an incalculable influence upon surgical progress in our section.

R. L. SANDERS, M.D.

NU SIGMA NU RUDOLPH MATAS LECTURESHIP

This lectureship has just been inaugurated by the Beta Iota chapter of the Nu Sigma Nu Medical Fraternity as an annual lectureship in honor of Doctor Matas and is to be held each year in New Orleans. The first lectureship will be held January 28, 1948. Dr. Alfred Blalock, Professor of Surgery, Johns Hopkins Medical School, has been selected as the first inaugural speaker. His subject will be "Surgical Treatment of Congenital Cardiovascular Defects." The medical profession is invited.

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DR. MARVIN H. PORTERFIELD.....	219 W. Burke St., Martinsburg
DR. J. O. RANKIN.....	Wheeling Clinic, Wheeling
DR. I. EWEN TAYLOR.....	1119 Sixth Ave., Huntington
DR. HARRY V. THOMAS.....	Empire Bank Bldg., Clarksburg
DR. JOHN H. TROTTER.....	212 High St., Morgantown
DR. R. S. WIDMEYER.....	Parkersburg
DR. R. J. WILKINSON.....	1119 Sixth Ave., Huntington
DR. C. B. WRIGHT.....	206 Guaranty Bank Bldg., Huntington

JUNIOR FELLOWS

DR. J. A. KYLE BUSH.....	Myers Clinic Hospital, Philippi
DR. ROBERT W. LUKENS.....	58 14th St., Wheeling
DR. J. N. REEVES.....	Atlas Bldg., Charleston
DR. WOODROW W. SCOTT.....	Oak Hill Hospital, Oak Hill
DR. ROY R. SUMMERS.....	315 Medical Arts Bldg., Charleston
DR. J. FRANK WILLIAMS, JR.....	418 Goff Bldg., Clarksburg

